Wisconsin's Efforts to Identify and Address Historical Pesticide Contamination

The Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) oversees the cleanup of sites with lead and arsenic contamination from historical mixing, loading, and application of pesticides. Wisconsin's Lead Arsenate Program, now housed within DATCP,[1] is developing and implementing a proactive approach to prevent contact with contaminated soils at lead arsenate sites. This approach, which has only been partially implemented to date, consists of the following actions.

To date, the Lead Arsenate Program has been:

- Educating the public about potential lead and arsenic contamination at old orchard sites, recommended individual protection measures, and requirements for disclosure during property transactions.
- Recommending the use of protective physical barriers such as sod, pavement, or gravel and/or requiring additional protective measures where appropriate.

Within the next year, the Lead Arsenate Program plans to continue the above activities and take the following additional actions:

- Identifying former orchard locations through research of historical aerial photographs.
- Tracking information on those sites in a GIS database and providing access to that database to realtors, property owners, and the public through the Internet.
- Working with the Wisconsin Realtors Association to produce a special disclosure form for former orchard properties for use in property transactions.

Activities of the DATCP Lead Arsenate Program are currently funded largely by a grant from the Environmental Protection Agency. DATCP received a grant from EPA for about $77,000 for fiscal year 2002 (with an additional $13,000 provided by DATCP) to identify old orchard sites, develop the GIS database and Internet map server, and conduct public education and outreach.

<u>Cleaning Up Sites with Lead Arsenate Contamination in Wisconsin</u>

In Wisconsin, properties with arsenic and lead soil contamination from pesticides are typically cleaned up through the state voluntary cleanup program, after the land use has changed from agricultural to non-agricultural uses. To assist property owners and developers in identifying areas of potential lead and arsenic contamination and conducting any necessary cleanup of former orchard sites, DATCP has developed guidance for site assessment and cleanup of former orchard sites based on three categories of sites. These site categories, along with any associated requirements for site assessment and cleanup, are as follows.

1. <u>Background level (naturally occurring) sites,</u> which have arsenic concentrations below 5 ppm and lead concentrations below 50 ppm. No action is required for these sites.

[1] Based on studies of former orchards in Door County, the Wisconsin Department of Natural Resources (DNR) and the Wisconsin Department of Health and Family Services concluded that some action was needed to address risks from exposure to elevated levels of arsenic and lead in soil at former orchard properties. Responsibility for ensuring that sites with lead arsenate contamination are identified and cleaned up was later transferred from DNR to DATCP.

2. Pesticide-use level sites, which have arsenic concentrations between 5 and 100 ppm and lead concentrations between 50 and 400 ppm. DATCP recommends that basic site management practices—installation and maintenance of protective barriers—and individual protection measures are followed for these sites.
3. Priority level sites (spills, mixing and loading sites, etc.), which have arsenic concentrations above 100 ppm and lead concentrations above 400 ppm. In addition to the basic site management practices described above, DATCP requires active cleanup and site management practices for priority-level sites to ensure that they are cleaned up to pesticide-use levels or approved alternative remedial actions are implemented.

Wisconsin's general cleanup levels, called clean closure goals, are 0.039 ppm for arsenic in soil and 50 ppm for lead in soil for non-industrial sites. Wisconsin state law does, however, allow natural soil background concentrations, which average around 5 ppm for arsenic, to be used instead of these standards on a site-specific basis. The corresponding general cleanup levels for Washington are 20 ppm for arsenic in soil and 250 ppm for lead in soil, higher than Wisconsin's general cleanup levels. The interim action .levels for child-use areas within the Tacoma Smelter plume are 100 ppm for arsenic and 700 ppm for lead, as compared to the action levels the Wisconsin Lead Arsenate Program has set for priority-level pesticide sites of 100 ppm arsenic and 400 ppm lead.

More information on Wisconsin's Lead Arsenate Program, including a guidance document and a question-and-answer fact sheet, is available from this website:
http://datcp.state.wi.us/arm/agriculture/pest-fert/pesticides/accp/lead_arsen.htm